

# VIKING PRODUCT MANUAL

COMMUNICATION &amp; SECURITY SOLUTIONS

## W-Series

Vandal Resistant  
Handsfree Doorboxes

January 16, 2014

## Answer Your Door or Gate from the Safety of Any Phone in Your Home or Business

The **W-Series** handsfree doorboxes are available in three different chassis configurations. The **W-1000** has an aluminum faceplate with black textured powder paint and call progress LED. The **W-2000A** provides a surface mount light grey UV stable plastic chassis. The **W-3000** provides an attractive vandal resistant stainless steel faceplate and call progress LED. The **W-Series** are designed to interface directly with an unused analog telephone line input of phone system. One or two doorboxes can also share an existing phone line when used with a **C-1000B** doorbox controller.

When the "Call" button is pressed, the doorbox generates a standard or custom ring cadence of an adjustable number of rings. For noisy environments, the doorbox's new louder speaker output and "Push-to-Talk" feature can be used.

The **EWP** versions share all of the features of the standard **W-Series** in addition to Enhanced Weather



**W-1000/  
W-1000-EWP**  
Flush Mount  
Black Powder  
Painted Aluminum



**W-2000A/  
W-2000A-EWP**  
Surface Mount Light  
Grey UV Stable  
Plastic Chassis



**W-3000/  
W-3000-EWP**  
Flush Mount  
Brushed 316  
Stainless Steel

Protection (**EWP**) for outdoor installations where the unit is exposed to precipitation or condensation. **EWP** products feature foam rubber gaskets and boots, sealed connections, gel-filled butt connectors, as well as urethane or thermal plastic potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy on-site programming. For more information, see **DOD# 859**.

### Features

- **W-1000 Faceplate:** Vandal resistant 12 gauge louvered aluminum with weather resistant black textured powder paint and UV stable white silk screened graphics.
- **W-2000A Chassis:** Impact resistant, UV stable, light grey Gelyo plastic with black UV stable pad printed graphics. Surface mount only.
- **W-3000 Faceplate:** Vandal resistant 14 gauge louvered 316 marine grade stainless steel with #4 brushed finish and permanent laser etched graphics.
- Connect to a phone system's unused trunk input, FXO port or a Viking **C-1000B** Controller
- **Weather Resistant Features:** Marine grade 316 stainless steel screws and push button switch (**W-1000/W-3000**). Switch internally sealed per IP67. Mylar speaker. Self-draining mic mount. Faceplate, mic and speaker gaskets.
- Blue call progress / night light LED (**W-1000/W-3000**)
- High output speaker amplifier with volume adjustment
- Microphone volume adjustment POT
- 24 volt talk battery
- 20 Hz ring generator (6.0 REN ring load maximum)
- Selectable ring cadence (standard, double, short/short/long, or short/long/short)
- **Selectable number of rings (2, 3, 10 or 30)**
- Selectable "Push-to-Talk" feature for noisy environments
- Operating temperature range: -15°F to 130°F
- **EWP** versions are designed to meet IP66 Ingress Protection Rating (see **DOD# 859** for more information)

### Applications

- Ideal for noisy locations in "Push-to-Talk" mode
- Commercial, industrial or residential door security
- Door or gate communication
- Truck stop/gas station fuel island communication
- Use with the **C-1000B** controller for single line residential systems or when the operation of door strikes or gate openers is necessary (see **DOD# 155**)

[www.vikingelectronics.com](http://www.vikingelectronics.com)  
Information: (715) 386-8861

### Specifications

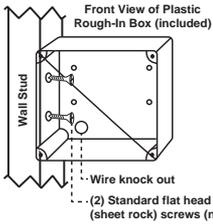
**Power:** 120V AC/13.8V AC 1.25A UL listed adapter provided  
**W-1000/W-3000 Dimensions:** Overall - 127mm x 127mm x 57.2mm (5.0" x 5.0" x 2.25") Plastic Rough-In Box - 102mm x 102mm x 54mm (4.0" x 4.0" x 2.12")  
**W-2000A Dimensions:** 140mm x 115mm x 40mm (5.5" x 4.5" x 1.6")  
**Shipping Weight:** 1.81 Kg (4 lbs)  
**Operating Temperature:** -26°C to 54°C (-15°F to 130°F)  
**Humidity - Standard Products:** 5% to 95% non-condensing  
**Humidity - EWP Products:** Up to 100%  
**Ringer Output:** 20 Hz, 6.0 REN load maximum  
**Maximum Line Loop Length with 24 AWG Twisted Pair:** 1.9 Km (6300 ft)  
**Maximum Power Run Length with CAT5 Wire:** 1 pair = 150ft, 2 pair = 300ft, 3 pair = 450ft **Note:** Power run length may be increased, see **Wiring section**  
**Connections:** (4) gel filled butt connectors

# Installation

**IMPORTANT:** Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges.

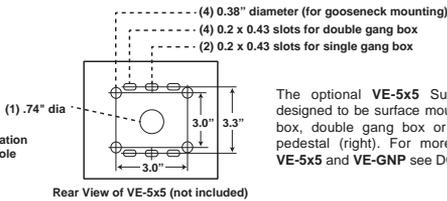
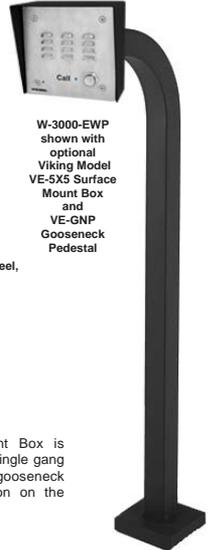
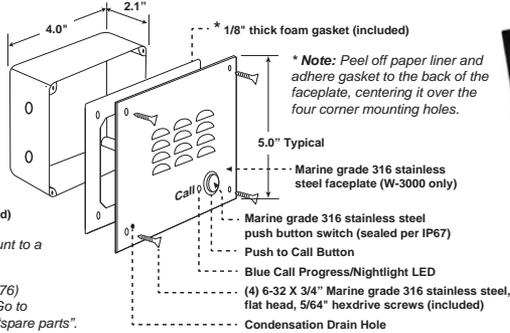
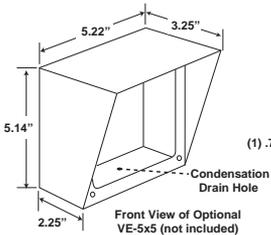
## A. Mounting the W-1000 and W-3000

**Caution:** When warm air comes in contact with cold surfaces, such as outside walls, it causes condensation. To help prevent condensation from accumulating inside the W-1000/3000, bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the plastic rough-in box.



**Important:** The W-1000/3000 will NOT mount to a standard double gang box.

**Note:** The plastic rough-in box (part # 259576) may be purchased separately in advance. Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "spare parts".



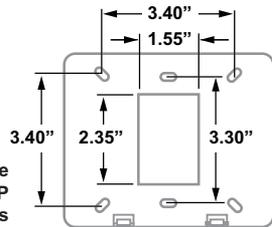
The optional VE-5x5 Surface Mount Box is designed to be surface mounted to a single gang box, double gang box or VE-GNP gooseneck pedestal (right). For more information on the VE-5x5 and VE-GNP see DOD# 424.

## B. Mounting the W-2000A

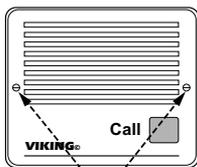
The W-2000A and W-2000A-EWP are designed to be surface mounted to a single gang box (not included), a standard 4" x 4" electrical junction box (not included), or directly to a wall or flat sided post.

**Note:** For outdoor applications apply a bead of caulk between back panel and wall.

Rear View of the W-2000A / W-200A-EWP Mounting Specifications

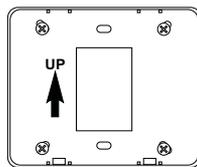


Front View of the W-2000A / W-2000A-EWP



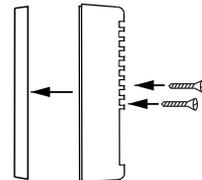
To open the speaker box, remove the two screws from the cover.

Internal View of the back panel W-2000A / W-2000A-EWP



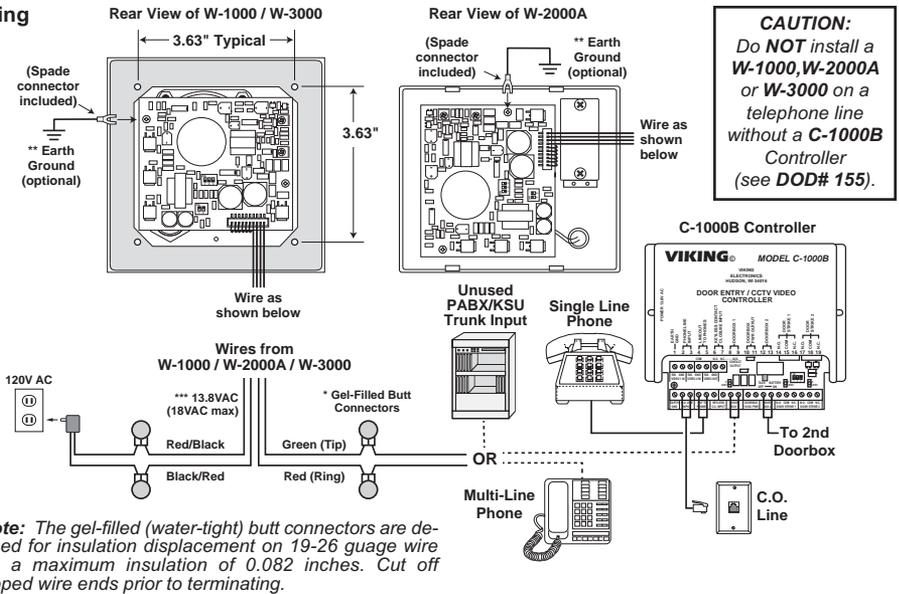
Mount the back panel to a wall, a single gang box or a 4" x 4" junction box with the arrow pointing up.

Side View of the W-2000A / W-2000A-EWP



Attach the cover to the base with the two included screws as shown.

## C. Wiring



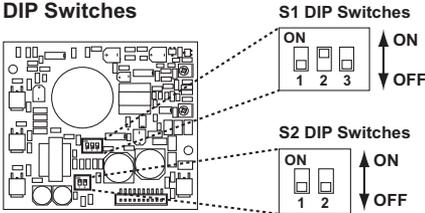
**\* Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Cut off stripped wire ends prior to terminating.

**\*\* Note:** To increase surge protection, loosen the PCB mounting screw labeled  $\oplus$  (as shown above) and fasten a wire with spade terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

**\*\*\* Warning:** The power run wire length is limited to 150 ft of CAT5 wire. Longer power runs will require heavier gauge wire (doubling or tripling pairs) and/or a higher voltage power adapter. Voltage at the doorbox power input connections must not exceed 18VAC RMS.

## Programming

### A. DIP Switches



**Note:** All switches shown in factory default settings.

### S1 DIP Switch Settings

Switch 1	Switch 2	Ring Output
OFF	OFF	2 rings
ON	OFF	3 rings
OFF	ON	10 rings (default)
ON	ON	30 rings

Switch 3	Communication Mode
OFF	Normal Handsfree Mode (default)
ON	Push-To-Talk Mode

### S2 DIP Switch Settings

Switch 1	Switch 2	Ring Cadence
OFF	OFF	Standard: 1 sec on, 3 secs off (default)
ON	OFF	Double: 1 sec on, 0.5 sec off, 1 sec on, 3.5 sec off
OFF	ON	Short/Short/Long: 0.5 sec on, 0.5 sec off, 0.5 sec on, 0.5 off, 1 sec on, 3 secs off
ON	ON	Short/Long/Short: 0.5 sec on, 0.5 sec off, 1 sec on, 0.5 sec off, 0.5 sec on, 3 secs off

### B. Handsfree Operation (S1 Dip Switch 3 - OFF)

When the "Call" button is pressed, the call progress LED (on **W-1000/W-3000** only) will turn off and the **W-Series Doorbox** will begin generating a 20 Hz ring signal. The caller at the **Doorbox** will hear an audio ring back signal while the LED flashes. When the inside party has answered, the LED will light until the inside party hangs up. At that point, the LED will turn off for approximately one second and then light steady to illuminate the **W-1000/W-3000** after dark.

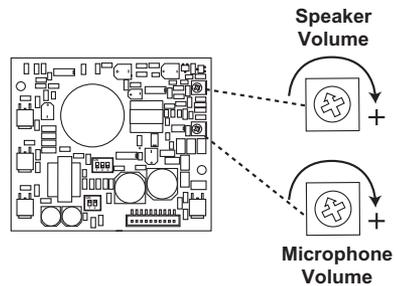
### C. Push-To-Talk Operation (S1 Dip Switch 3 - ON)

In extremely noisy locations, the "Push-to-Talk" mode should be used. To switch to the "Push-to-Talk" mode, place DIP switch 3 in the **ON** position (see **Dip Switch Programming**). To initiate a call, momentarily press the "Call" button to generate the ring signal. After the inside party has answered, press and hold the call button to talk. Release the call button to listen.

## D. Microphone and Speaker Volume Adjustment POTs

In certain noisy locations, the microphone volume may need to be decreased. A microphone POT (see right) is provided on the **W-Series Doorbox's** circuit board to increase or decrease the microphone volume. However, in extremely noisy locations the microphone POT adjustment may not be enough to allow two-way talk path. In this case the "Push-to-Talk" mode should be used as shown above (see **Programming** section C).

**Note:** Both POTs come factory set in the middle position. A speaker volume POT is also provided for increasing or decreasing the speaker audio as needed.



## Operation

In the idle state, the **W-Series Doorbox** provides 24V DC talk battery. The LED (**W-1000/3000** only) remains lit for night time visibility.

When the "Call" button is pressed, the **Doorbox** generates a standard or custom ring cadence (adjustable from 2-30 rings). The LED will turn off and then begin flashing during ringing. When the call is answered, ringing will stop and the LED will light steady. When the called party hangs up, the LED will turn off momentarily and then remain lit for the idle state.

## Warranty

**IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666**

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Friday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

### RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to: **Viking Electronics, 1531 Industrial Street, Hudson, WI 54016**
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

### RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the Viking product using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

### TWO YEAR LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of two years from the date of purchase from any authorized Viking distributor. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments. This warranty does not cover stainless steel surfaces that have not been properly maintained.

**NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

**EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.**

**EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY. WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.**

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**Product Support: (715) 386-8666**

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